

Translational Confidence Starts with Champions Oncology PDX Models

Champions' solid tumor patient-derived xenograft PDX models are diverse, deeply characterized, and clinically relevant, delivering the translational power to advance oncology programs with confidence.

Solid Tumor PDX Models (TumorGraft® Models)

A living collection of PDX models designed to generate actionable insights that guide oncology drug development, inform targeted treatment strategies, and uncover mechanisms of drug resistance.

- 1,500+ PDX models representing molecular and pathological heterogeneity across tumor indications
- Advanced-stage representation, including models pretreated with next-generation targeted therapies
- Extensive clinical annotation integrated with deep multi-omic datasets and in vivo response data
- Broad application across modalities, including small molecules, antibodies, ADCs, BITEs, CAR-T cells, and combination therapies
- Varied endpoints available such as flow cytometry, western blot, Luminex assays, RNA-seq, WES, quantitative 4D proteomics, body/tumor weight measurement, and IHC.

Tumor Indication	No. models
Colorectal	215
NSCLC/SCLC/Lung	210
Sarcoma	148
Breast	134
Head & Neck	127
Other Tumor Types	122
Hematological	110
Ovarian	89
Pancreatic	81
Melanoma	49
Renal Cell Carcinoma	46
Gastric	32
GBM & Glioma	32
Endometrial	29
Prostate	23
Lymphoma	23
Bladder	19
Esophageal	18
Cholangiocarcinoma	18
Hepatocellular Carcinoma	14
Uterine	9

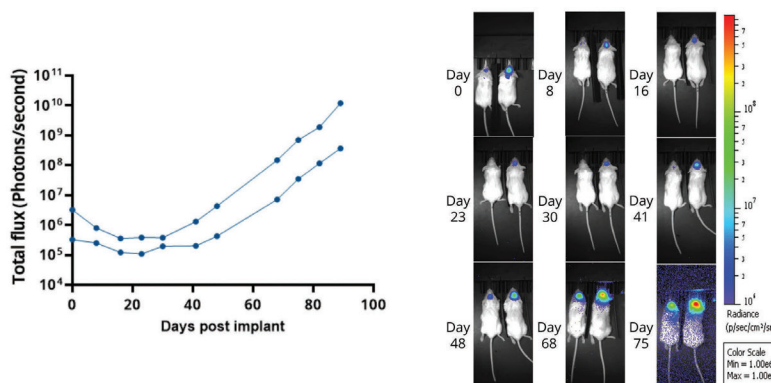
Tumor Profile - Cancer type and subtype - Stage, grade, histology - Harvest site	Patient Demographics - Gender, age - Ethnicity - Smoking history	Patient Medical History - Clinical diagnosis - Pre-treatments - Post-treatments - Treatment response
Genetic and Molecular Profile - Mutations (SNVs and indels) - Copy number variations - Novel fusions/rearrangements - Gene expression & phosphoproteomics	In Vivo Drug Sensitivity Standard of Care response (%TGI, %DT/DC)	Growth Characteristics - Doubling time - Time to 150mm³ - Time to 1000mm³

Translational Orthotopic PDX Models

Our orthotopic PDX models are generated by implanting a TumorGraft® PDX model into the corresponding organ of origin in animal models (e.g., human lung cancer cells into a mouse lung) to better mimic human tumor metastasis, growth, and immune interactions. These models enable more clinically relevant evaluation of tumor behavior and therapy response compared to subcutaneous models.

CTG-3300 : Glioblastoma PDX Model, Orthotopic Implantation

- Assess therapy response under organ-specific biological conditions, including vascular and stromal interactions
- Enable longitudinal in vivo monitoring of disease progression using imaging platforms, including IVIS bioluminescence

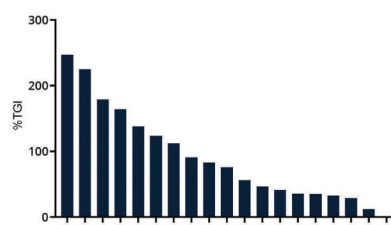


PDX for Radiopharmaceutical Development

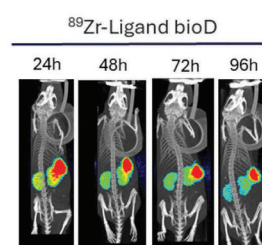
Champions is the only preclinical CRO to pair radiopharmaceutical testing (RPT) with clinically annotated PDX models that mirror real-world patient diversity. This platform enhances predictive power by capturing tumor heterogeneity, antigen expression, and response profiles critical for optimizing radiopharmaceutical efficacy and safety.

- Radiolabeling across key isotopes, including Lu-177, Ac-225, In-111, Cu-67, Y-90, Pb-212, At-211, Tb-161, Cu-64, and Zr-89
- In-house PET/CT imaging[LS8.1] to assess biodistribution, receptor occupancy, and tumor targeting
- Integrated RPT services supporting studies from early discovery through late-stage validation
- Tissue microarrays (TMAs) enabling pre-in vivo assessment of target expression across tumor types

Therapeutic Efficacy



In Vivo / Ex Vivo Biodistribution



Mouse Clinical Trials

Mouse clinical trials (MCTs) use cohorts of PDX models implanted in immunodeficient mice to represent a clinical study population. By combining scientific rigor, predictive value, and translational relevance, our MCTs allow oncology researchers to de-risk drug development and increase confidence in clinical trial planning.

- Assess efficacy across diverse tumor types
- Evaluate biomarkers and stratify responders vs. non-responders
- Investigate resistance mechanisms and optimize drug combinations

Whether you're screening a large panel or validating a lead asset, our MCT designs are customizable to your study goals.

PDX-Derived 3D Tumor Models (TumorGraft®3D)

TumorGraft®3D models are low-passage, multiclonal 3D tumor cultures derived from our PDX bank, which maintains key tumor characteristics to support translational decision-making. They are used in the matrix-free TumorGraft®3D platform to enable cohort comparison, asset benchmarking, and mechanism-focused analyses, including target dependence, payload sensitivity, genotype-linked effects, and immune-mediated activity. Matched TumorGraft® and TumorGraft®3D models provide continuity between *ex vivo* and *in vivo* evaluation.

